X-ray Statistics for cycle starting on 11 September 2005

Operations

Scheduled operations	504	[hr]
Expected number of scheduled fills	45	
Fills completed as scheduled (start and finish)	38	
Anticipated Fill Budget (45 min. per fill)	34	[hr]
Anticipated Operating Beam Available	470	[hr]
Total fill time during scheduled operations	28	[hr]
Delivered beam during scheduled operations	462.7	[hr]
Total beam available (including unscheduled ops)	571.5	[hr]

Fault Statistics over consolidated operating hours in cycle

Number of Faults	10	
Total lost operations time	13.7	[hr]
Average time between faults	45.8	[hr]
Minimum time between faults	3.1	[hr]
Maximum time between faults	125.6	[hr]
Standard Deviation	43.0	[hr]

Summary X-ray for Cycle starting 11 September 2005

Fill Statistics	XA	UA	XB	UB	XC	UC	XD	UD	XA	UA
Cycle Starting 11 September 2005	11 Sep		18 Sep		25 Sep		2 Oct		Cycle Ave	
Planned number of User Fills	14	47	11	37	11	47	9	31	11.3	40.5
Total Number of User Fills	15	48	13	39	12	46	10	35	12.5	42
Fills to scheduled completion	13	45	9	35	10	47	6	34	9.5	40.3
Dumps during Operations	2	3	3	2	2	0	3	1	2.5	1.5
Average Time between Faults [hr]	82.7		51		81		61.9		69.2	
Faults Requiring Repairs	0		1		1		0		0.5	
Average Time to Recover [min]	57		63.7		130		64		78.7	
Average User Fill Time [min]	35.1		28.9		30.8		38.1		33.2	

Note: Average time between faults calculated on weekly basis. By convention a no fault week can have no more than 168 hours between faults.

Fault Abstract for Cycle starting 11 September 2005

Week				Cycle	Category
9/11	9/18	9/25	10/2	Total	
1.6	0.32	0.43	0	2.4	VUV Downtime
0	0	0	0	0.0	VUV Regulation and Compliance Downtime
2.23	3.18	4.33	4	13.7	X-Ray Downtime
0	0	0	0	0.0	X-Ray Regulation and Compliance Downtime
3.11	3.55	6.53	5.57	18.8	Equipment Downtime

X-ray DT				Total	Type of Problem
		0.08		0.08	RF Trip
		4.25		4.25	Trim PS Failure
	2.58			2.6	X-4C Shutter Cylinder Replacement
2.03	0.6		0.23	2.86	Power Dip
			0.2	0.2	Beam Dropout
			3.57	3.57	Central Chilled Water Went Down
0.2				0.2	Unknown Trip
2.23	3.18	4.33	4	**13.7**	

VUV DT				Total	Type of Problem
0.35				0.35	RF Trip
0.20				0.2	UV Trim Micro
		0.43		0.43	UV Main Magnet Micro (during injection)
1.08	0.32			1.4	Power Dip
1.63	0.32	0.43	0	**2.38**	

n.b. All times in hours